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Claims

1. A method of balancing the load of resources in a
packet switched connection within a communication system,
5   said system comprising processing units (11; 21) for
performing communication, at least one load balancing
unit (12; 22) for distributing the load to said
processing units (11; 21), and a data storage (14; 24),
said method comprising the steps of:
10   obtaining a current connection state as well as a
current load state of said processing units from said
data storage (14; 24);
         selecting by said load balancing unit (12; 22) a
processing unit on a per-packet basis; and
15   maintaining information about the load state of each
processing unit (11; 21) so that said selecting step is
performed by selecting a processing unit to serve and
process a respective packet based on the load state.

20 2. A method according to claim 1, wherein said data
storage is accessed to by said load balancing unit.

3. A method according to claim 1, wherein said data
storage is accessed to by said processing units.
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4. A method according to claim 1, wherein said
information about the load state is maintained as a
Boolean state.

30 5. A method according to claim 1, wherein a processing
unit is selected in a round-robin fashion.

6. A method according to claim 1, wherein a supported
service profile for each processing unit is maintained.
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7. A method according to claim 6, wherein said supported service profile is used as additional selection criteria.

8. A method according to claim 1, wherein said load
5 balancing unit obtains a load state from each processing unit upon a hardware based mechanism.

9. A method according to claim 1, wherein said load balancing unit obtains a load state from each processing
10 unit upon a packet based mechanism.

10. A method according to claim 9, wherein a load state of a processing unit is inserted into a packet processed by' said unit.
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11. A method according to claim 9, wherein a packet returned by a processing unit is interpreted as a flag for a free resource.

20 12. A method according to claim 1, wherein excess traffic is redirected to another load balancing unit, said excess traffic being defined upon the number of active processing units.

25 13. A device unit for serving and processing packets of a communication connection, comprising:
        means adapted to inform a load state of said device to a balancing unit; and
        means adapted to obtain a state of said
30 communication connection.

14. A device unit according to claim 13, wherein said obtaining means is adapted to retrieve said communication connection state from a data storage.
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15. A device unit according to claim 13, wherein said obtaining means is adapted to retrieve said communication connection state from a packet being under processing.

16. A device unit for balancing a load of each of multiple processing units performing a packet switched communication connection, comprising:
    means for maintaining a load state of each of said processing units; and
    means adapted to select a processing unit on the basis of a respective load state.

17. A device according to claim 16, wherein a load state of a processing unit is contained in a table.

18. A device according to claim 16, wherein a load state of a processing unit is expressed as a Boolean value.

19. A device according to claim 16, wherein a load state of a processing unit is expressed as value which corresponds to the percentage of load.

20. A device according to claim 16, wherein said selecting means is adapted such that a processing unit is selected also on the basis of a parameter indicating the service profile supported by a respective processing unit.

21. A device according to claim 20, wherein said parameter is contained in a table.

22. A device according to claim 16, further comprising means adapted to insert a communication connection state into a packet to be routed.

23. A device according to claim 16, wherein the processing units are comprised of multicore digital signal processing means having a shared data storage for all cores, whereby said device comprises a first level of
5 load balancing for selecting a digital signal processing means and a second level of load balancing for selecting a single core.

24. A device according to claim 16, further comprising
10   means for redirecting excess traffic to another device according to claim 16, wherein said excess traffic is defined upon the number of active processing units.

25. A system adapted to perform a method according to any
15 of the claims 1 to 12.